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JOINT COUNCIL ON FOOD AND AGRICULTURAL SCIENCES

Secretariat:
Science and Education Administration
U.S. Department of Agriculture
Washington, D.C. 20250

PROCEEDINGS OF THE
JOINT COUNCIL ON FOOD AND AGRICULTURAL SCIENCES
MEETING, OCTOBER 10-12, 1979
HOLIDAY INN, CAPITAL BELTWAY
BELTSVILLE, MARYLAND

Attendees:

Anson R. Bertrand, Cochairman
John S. Robins, Cochairman
W. Henry Anthony, Sr.
Roberta Archer
Lawrence Bogorad
Charles B. Browning
Doris H. Calloway
T. W. Edminster
Richard A. Farley
Kenneth R. Farrell
Homer C. Folks
John L. Gerwig
D. Mark Hegsted
R. J. Hildreth
John P. Mahlstede
Richard D. Morrison
R. Denis Prager
Harold F. Robinson
W. Neill Schaller
Richard A. Skok
Charles M. Smallwood
W. I. Thomas
James Nielson, Executive Director
Fred E. Westbrook, Acting Executive
Secretary

Others Present:

Ray F. Altevogt
Charles Beer
J. M. Brazzel
Mark T. Buchanan
Lynn Daft
Elizabeth Y. Davis
Richard Fraser
S. H. Gillette
James T. Hall
D. K. Hayes
James M. Iacano
Jan Kennedy
Marvin Konyha
Charles Kraenzle
Doyle Matthews
James Meyers
W. C. Olsen
Merrill Petoskey
H. G. Purchase
E. L. Shafer
Robert O. Sinclair
Alice Skelsey
Rosemary Spencer
Larry V. Summers
Patricia B. Swan
Donald W. Swoboda
Anson E. Thompson
C. Edith Weir
James R. Welsh
J. C. Williamson, Jr.
Eldon L. Zicker

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PROCUREMENT SECTION
CURRENT SERIAL RECORDS

1. Presiding Cochairmen: Anson R. Bertrand and John S. Robins
2. The proceedings of the July 11-12, 1979, meeting were approved.
3. Membership

Cochairman Anson Bertrand commented on staff status.

a. New member

Richard A. Skok, Dean, College of Forestry, University of Minnesota.

b. Members whose term expires December 31, 1979.

Charles B. Browning, Dean, College of Agriculture, University of Florida. Also it was noted and the Council congratulated Charles B. Browning on being selected Dean of the School of Agriculture at Oklahoma State University.

Doris Howes Calloway, Professor of Nutrition, University of California.

John P. Mahlstedt, Associate Dean, College of Agriculture, Iowa State University.

c. It is hoped that members whose terms are expiring will remain on until a replacement can be found.

4. Staff

- a. James Nielson announced that Joyce Torio, Executive Secretary to the Joint Council has accepted a position with the World Bank. A nationwide search for an Executive Secretary is underway.
- b. Fred Westbrook from the Joint Planning and Evaluation Staff will serve as Acting Executive Secretary until the position is filled.
- c. Rosemary Spencer of SEA Information has been assigned to assist the Joint Council on its information, writing and editing work.

5. Committee Reports

a. Joint Council Efforts in Integrated Pest Management

- J. P. Mahlstedt, Chairman of the Committee on Integrated Pest Management, reported that he had contacted the four regional IPM committees to determine their interest in joining with the Joint Council on regional and national workshops. All expressed interest. Two regions are working on regional IPM workshops to be held either the latter part of 1979 or early 1980.

b. Organizational Structure for Planning and Coordination

- W. I. Thomas, Chairman of the Ad Hoc Committee, reported that all four regions have had meetings of Ad Hoc Regional Councils and are moving toward establishing permanent Regional Councils. When nominations have been received, the permanent councils will be appointed by the Joint Council Cochairmen
- The Five-Year Planning Committee wants to get the regional councils involved.
- The Ad Hoc Committee is coming close to completing its task and the Steering Committee to take its place needs to be appointed. The Executive Committee will address this issue.

c. Study Group on Technical Information Systems Planning and Coordination

- Cochairman Doyle Matthews and Richard Farley presented an interim report of the study group reported that the group. The report was accepted by the Council as an interim report and requested that a full report be given at the next meeting of the Joint Council. The full report should contain recommended solutions to problems and recommendations for strategies to improve national coordination of technical information systems in the food and agricultural sciences.

d. Ad Hoc Committee on Human Nutrition

- James M. Iacono, Chairman of the Ad Hoc Committee stated the charge to the committee was to report on three areas of human nutrition programs:
 - (a) an inventory of existing work and objectives
 - (b) an identification of work needed but not underway, and
 - (c) a specification of coordination needs
- The committee made four recommendations of areas that need coordination efforts as follows: 1) A data base for planning for research, extension and higher education. 2) A national planning effort in human nutrition. 3) Improvement in the transfer of knowledge, and 4) Definition of nutrition specialties in higher education.
- The Joint Council was requested to make written comments on the study and send them to the Executive Director within the next three weeks. These comments are to be given to the committee who will further develop the recommendations.

e. Ad Hoc Committee on Small Farms

- Allan S. Johnson, Chairman of the Ad Hoc Committee on Small Farms, reported that the charge to this committee was threefold:

- a. make an inventory of existing work.
 - b. Identify work needed but not underway.
 - c. Specify coordination needs.
- The Committee identified some small farms research gaps, lack of updated data base, some extension needs and lack of a clear definition of small farms.
 - The Committee recommended that the JC consider the inclusion of a small farm component in its regional and national planning and coordinating structure for research, extension, and higher education.
 - The Committee reported that additional funding is needed for small farm programs, but that these should not be redirected funds, but rather they should be new funds.
 - The JC invited all members of the Council to comment on the report in writing and send them to the Executive Director within the next three weeks. Council members were requested to give special attention to the portion of the report dealing with increased funding for small farms. These comments will be passed on to the Committee.
 - The Cochairmen were directed to write a report from the JC to the Secretary regarding items of increased funding levels for small farms programs as reported on pages 43 and 44 of the report. The Small Farms Committee was directed to assist in drafting the communication.
- f. National Agricultural Research and Extension User's Advisory Board
- Roberta Archer reported on the UAB meeting in St. Paul, Minnesota, September 17-19. The UAB held a public forum, inviting users to state their priority needs and concerns. Seventeen speakers made statements and the UAB found them most helpful. The Board also took advantage of the field site to observe local transportation problems, discuss local crop concerns, and visited Control Data Corporation to hear about its Rural Venture Program. The UAB spent most of its time preparing its October 31 report to Secretary Bergland, which will be made available to all JC members. The UAB will meet next in Orlando, Florida, February 18, 19, and 20, 1980.
- g. Followup Committee on Joint Council/Users Advisory Board Joint Concerns.

At the July 11-12 joint meeting of the JC/UAB an Ad Hoc committee made up of JC and UAB members was named to suggest specific action on a list of areas suggested for joint action. Roberta Archer and Neill Schaller collaborated in making the report. They reported that the JC and UAB are two different organizations with unique purposes. However, the Ad Hoc Committees on JC-UAB joint concerns listed three general areas of concern.

- a. Energy sources and use.
- b. The structure of the research and extension system.
- c. The effects of research and extension programs and recommendations regarding agricultural production, processing, and marketing practices on the nutritional quality, safety, availability and costs of food.

The Council agreed that each organization should approach these areas separately at this time and appraise progress in the above areas later.

6. Dr. Orville Bentley was the dinner meeting speaker (see appendix).

7. Planning and Supporting Research, Extension and Higher Education in the Food and Agricultural Sciences

- a. Cochairman Robins opened this session with background and perspective remarks. He stated that agriculture produced goods and services worth \$365 billion last year which was 19 percent of the nations gross business output. Dr. Robins also said that consumers spent less than 17 percent of their disposable income for food. He reminded the Council that this is the results of the application of research, extension, and high education in the food and agricultural sciences. He praised the land-grant system and others for their past performance and challenged them and the Council to take advantage of the opportunities that the Council provides for fostering coordination of these activities.
- b. Denis Prager, Office of Science and Technology, spoke on the assessment of current efforts and recommendations for the future. Prager stated that:
 - One of the problems of agriculture in receiving funds for research is that it has been so successful. Agricultural exports in 1979 will be between \$35 and \$40 billion.
 - Agricultural producers have problems in supplies and cost of fertilizers; cost of pesticides, labor supply, etc., and effects of agriculture on the environment.
 - Prager raised several questions concerning agricultural research challenges? Are the tough questions really being answered? How do we differentiate between the AR inhouse scientists work and the cooperative scientists work? How do we handle our peer review program? What about the five-year program reviews? What about the special grants program, is the quality high and is it competitive? Is there sufficient communication between public and sectors?
 - OSTP is willing to fight for more resources for agricultural research but only if agriculture comes forth with revised programs.

- The JC has made a good start, it has a good structure for coordination. Council members must understand the budgeting process and other structures of government. They must understand the arena and understand the constraints of the budgeting process. Those of us in the Federal Government need the Council's advice on national priorities for year to come.
- c. Lynn Daft, White House Policy staff, spoke on the subject Federal policies, criteria and priorities.

Dr. Daft stated that governmentwide policy will be dominated by four major areas of concern:

1) Economic Policy

This will demand continued attention to physical restraints and budgets and the effect of budgets on the economy. He stated that he would expect to find continued attention to deregulation and where they find places that governmental intrusion or involvement is having a negative effect on competition and productivity, to see government pull back from that involvement.

2) Energy Policy

He stated that if we were to look at the policy agenda two or three years down the road energy might be slipping down in its dominance of concern, but energy matters are going to be terribly important. He predicted that for the next 5-10 years we will go through periods of some pretty serious shortages. Agriculture is also going to be involved in the energy side from a production standpoint, from biomass, solar, etc. There is unbelievable political interest in energy on the Hill, at last count there were 45 separate pieces of legislation dealing with alcohol fuel.

3) The third major element of overall policy deals with the international side.

That is always there both in the form of diplomatic efforts and efforts to promote peace.

4) The fourth factor that is likely to be there is continued attention to improving the performance in the public sector. Not just the Federal government but State and local government as well.

- The issues that are coming up and they are very much unresolved are issues such as transportation. This issue is larger than agriculture. It is a significant policy issue for the entire economy and is going to become more and more important. We see this year we are trying to move more grain to export ports than ever before and at the same time we are having increasing problems with rail systems, work stoppage, and we are finding the water

routes are very limited in their capacity.

- Another issue that Secretary Bergland raised at his Farmers Union speech 2 or 3 months ago is on the structure of agriculture, and another is the renewable resource conservation and land use. Still another is agriculture productivity. Agriculture productivity is not coming on strong now, but when one steps back and looks at our supply-demand balance in the world and what it looks like in the future, you get sort of worried about where we are going to be in the future and whether our productivity is really going to be able to keep pace.

8. Committee to Develop a Five-Year National Plan for Renewable Resources Extension.

A progress report was made by Merrill (Pete) Petoskey.

- The Act, Public Law 95-306, addresses the renewable resource opportunities on private forest and rangelands of the U.S. and it talks about all renewable resources; wildlife, fish, forage, outdoor recreation opportunities, timber, water, etc.
- Mr. Petoskey stated that we have State plans from 50 States, and all of the territories except the Virgin Islands. He commended the committee and those that worked with him for doing a wonderful job.
- The committee will continue to refine the plans, and to expand public involvement.
- The final plan is expected to be completed by March 31, 1980.

9. Steering Committee on Technology Assessment

Ken Farrell reviewed the background of the Steering Committee and the group that preceded the Steering Committee beginning with the ARPAC Committee. The Steering Committee is composed of John Lee (ESCS), and Virgil Hayes, University of Kentucky, as Cochairmen. Dr. Farrell reported that the Steering Committee was scheduled to meet in Chicago on October 9, but they were not able to put a quorum together and they are now scheduling a meeting in late November.

10. Committee on Coordinating Marketing Reserach

J.C. Williamson, Chairman of the Committee, reported difficulties with completing the original assignment of this Committee that started under ARPAC and recommended a reorganization of the Committee.

The JC acting on the suggestions from the Executive Committee recommended that a four person subgroup work under the direction of the general committee to carry out the original objectives of the committee.

Recommended members of the subcommittee are; Elwood F. Caldwell, University of Minnesota, O. D. Forker, Cornell University, Marshall R. Goodwin, ESCS, USDA, and a SEA-AR representative to be named. The committee will report to the JC in April. The chairman of the four person committee is to be suggested by the cochairmen of the JC.

11. Extension Evaluation Study

Neill Schaller reported that the evaluation would be completed and the final report submitted to Congress on January 15, 1980. Draft copies of the report will be sent to the UAB and JC on November 16, 1979. The draft copy is to go to the printer by December 15, 1979.

12. USDA Agency Update

The representative from FS was called away because of an emergency and thus the Council did not receive an update from that Agency as planned.

13. ESCS Updates

- Dr. Kenneth Farrell reported that the responsibility of ESCS in the Secretary's structure of agriculture program is to provide the analytical research backup to the overall effort. The hearings and other aspects of the project are being handled out of the Office of the Secretary.
- ESCS has in progress and soon to be published two major reports which will make very important contributions to the agriculture community concerning the structure of agriculture. The first is a compendium of 30-35 issue papers. The title of the publication is Structure Issues of American Agriculture. This publication will be available in early November. The second is a publication also to be published in November entitled "U.S. Farming, How it is Organized and Managed." Both publications will be distributed very widely. Dr. Farrell requested suggestions or thoughts on a mailing list.
- A series of ten regional public hearings on structures of agriculture have been scheduled for November and December. After the hearings are over a copy of the results will be made available to interested organizations. Cochairman Robins suggested that all Council members be sent current materials regarding the structure agriculture including dates of hearings and other pertinent materials.

14. SEA Updates

- Cochairman Anson Bertrand passed out copies of the SEA budget update to members present. He stated that the 1981 budget started 2-3 percent below the 1980 budget. The budget included funds for new or expanded programs totaling some \$53 million. The budget also included proposed termination and/or reduction of existing research,

extension, and higher education programs totaling some \$6 to \$7 million. Thus, a net decrease of \$14 million in SEA programs in the FY 1980 budget existed. The President's 1980 budget for SEA is \$797,751,000.

- Cochairman Bertrand announced the movement of the competitive grants program to the cooperative research unit of SEA.
- Cochairman Bertrand reported that SEA undertook an indepth examination of itself this spring in terms of personnel ceilings, travel ceilings, etc.

15. Bob Papendick, Program Coordinator in the JPE and Program Development and Coordination Staff, who heads up the Organic Farming Task Force discussed the organic farming study that is underway in the Department. Team members on the organic study are: Garth Youngberg, Charles Kraenzle, Jim Swartz, and Jim Swan. Dr. Papendick stated that the task force is conducting case studies of organic farming operations in the United States and reviewing published materials on organic farming yields in the U.S. The report is designed to cover the current status of organic farming; who is doing it, what kinds of crops, levels of success, failures, problems, how do they control weeds, and how successful are they. The report is due in December and the distribution is to be determined by SEA.

16. High Priority Subjects for Coordination

The JC in an effort to fulfill its mission of fostering coordination in research, extension, and higher education established some short term goals for coordination while the long term organization was being established. Early in 1979 four high priority topics were selected by the JC for coordination activities. These areas were Integrated Pest Management, Human Nutrition Programs, Small Farms Programs, and Weather, Climate and Plant Stress.

Cochairman Robins reported that the Executive Committee recommends that the topic of weather, climate, and plant stress be dropped from the "high priority" list for 1980 and that four additional topics be considered from which two could be selected for major coordination emphasis for 1980. The four new topics are:

1. Energy and agriculture
2. Food and agriculture policies
3. Renewable resources programs and concerns, and
4. Food and agricultural regulatory programs.

The JC accepted the recommendation of the Executive Committee and suggested that a small ad hoc work group be appointed for each topic to flesh out the areas to make it easier for the Council to make selections.

17. Program Goals and Criteria for Priority Determination

- Dr. Charles Beer, JPE staff, distributed a draft document entitled "Program Goals and Criteria for Priority Determination" The document deals with criteria for establishing priorities in the future. After a number of comments it was agreed that the JC members would review the draft and return comments to the Executive Director by November 5.

18. The Five-Year Plan for Food and Agricultural Sciences

- Dr. McCracken stated that this committee was to serve as an umbrella to bring together all other five-year plans and programs in the department. Also, projections, analyses, reports, and related aspects in the three functional areas of research, extension, and higher education. These are to be synthesized and analyzed by this committee.
- The committee proposes to have a draft report by mid-November and a report to the JC in January 1980. The committee plans to do what it can toward synthesizing 5-year plans. The committee hopes that the regional councils can participate in this activity, but they may not be in place in time to meet the title XIV deadline for 5-year plans.
- Members of the Council were requested to react to the draft report within the next two weeks.

19. The Budget Committee:

A draft copy of "Review of the Joint Council Budget Committee" prepared by the staff was distributed to the Council. Cochairman Robins stated that there are two general kinds of needs. It was the consensus that the Council should establish a mechanism:

- a. To react to short-run budget issues, and short-term budget needs.
- b. To react to the more long-term to budget related items. The Council was directed to react to this draft by sending their comments to the Executive Director by November 1.

20. Financing Council Activities:

- The Executive Committee of the JC proposed that the JC fund travel and per diem for those activities of the JC, of the National Planning Committees and the national study groups that are sponsored by the JC. The Executive Committee had also given some attention to the possible desirability of the Council supporting part of the travel costs in connection with the regional councils and committees that are a part of the Joint Council's Planning and Coordination structure.
- The Council asked the Executive Committee to look into this matter and report back to the Council.

21. Competitive Grants for Higher Education

- The Executive Committee endorsed in principle the draft of competitive grant guidelines on higher education and appointed a small group composed of Charles Browning, Richard Morrison, and Charles Smallwood to make a close review of the draft and send their comments to Homer Folks by November 1, 1979. Copies will also be sent to other Council members for their comments.
- The Joint Council went on record as endorsing the motion in support of competitive grants and cooperative agreements for higher education. The Council is on record as supporting the Bankhead-Jones Act funding.

22. Joint Council/Users Advisory Board Activities

- Cochairman Robins stated that the Cochairman we will be appointing some study group to follow up on the JC/UAB joint activities, which was reported earlier in this document.
- Representatives of the JC and UAB met with Howard Hjort in early August. This was a very helpful meeting where a wide range of activities were discussed including the budget.

23. Other Comments From the Executive Committee

- Development of a common program structure for the purpose of proposing the development of a draft common program structure prepared by the staff was passed out for the Council to study. Council authorized the appointment of a requested committee with a six month time frame to report its findings and recommendations.
- Cochairman Robins stated that activities are continuing on the Research Facilities Study and an analysis of those data are in progress.
- Cochairman Robins reported that the research awards has been placed back on the table and we have commissioned the staff to proceed with the recommendation of the research awards committee to develop the guidelines and get them back to the Council in time for the January meeting.
- Cochairman Robins raised the question of whether the Council preferred two day meetings confined to two days or a two day meeting spread over three days. The Council will be polled to determine the wishes of the group.
- The Council passed a resolution authorizing a letter of thanks and an appropriate recognition to be given to outgoing members of the Council.
- The next Council meeting will be held in Washington, D.C., January 16-18, 1980.

APPENDIX

THE STATE OF INTERNATIONAL AGRICULTURE AND ITS IMPACT ON THE JOINT COUNCIL ON FOOD AND AGRICULTURAL SCIENCES

One of the ways the United States can strengthen its national commitment to international technical assistance in agriculture and food would be to develop a more cohesive plan for mobilizing its vast resources. Given the role of the Joint Council on Food and Agricultural Sciences of the USDA, it seems appropriate that it should concern itself with planning as it applies to the overall research and education programs in agriculture, and this includes the international dimension as well. Jurisdictional matters are, of course, of concern, but it would be my hope that through inter-agency cooperation, a more coordinated effort could emerge than is now in place. Since the colleges of agriculture, and especially the land-grant institutions, are a major component of the Joint Council, my comments would be directed toward the unique role colleges of agriculture have in fulfilling the United States' commitment to technical assistance efforts abroad. Some reflections about past developments will help set the stage for these comments.

Historically early in the post World War II era, the U.S. made a policy declaration that it would provide international economic and technical assistance to underdeveloped nations. This commitment was made on the rationale that through such assistance programs the more developed economies could help the world's less

Dean Orville G. Bentley, College of Agriculture, University of Illinois at Urbana-Champaign, at meeting of Joint Council on Food and Agricultural Sciences, College Park, Maryland, October 10, 1979.

fortunate people in the struggle for economic and social equality. The motivation was not purely humanitarian as the pragmatic overtones spilled over into national security and the desire to reduce international tensions as a condition for peaceful coexistence. Moreover, there was the conviction that through providing assistance old mistakes of colonial power could be avoided and that perhaps these policies would help shape new strategies for international relationships among nations.

An obvious target for these economic and technical assistance efforts was in food and agriculture. The majority of the population in most developing countries are engaged in agriculture and, coincidentally, they also are the people suffering from poverty, malnutrition, and the lack of educational opportunities. In 1948 President Truman spoke to this commitment through the now famous Point IV declaration. The involvement of the land-grant universities, particularly the colleges of agriculture, during the past 30 years in international program efforts is well known to this group. As we look ahead to the 80's, though, perhaps some reflections on the impact of these program activities have had on colleges of agriculture are apropos.

Prior to World War II only a few institutions had been seriously involved in international agricultural development programs. There were, of course, faculty and student exchanges and study abroad programs, especially in the basic sciences. Dating back to colonial days there had been programs for the importation of plant materials, more productive blood

lines for livestock and poultry, and new concepts for integrating basic sciences into agricultural sciences and education. But direct involvement by colleges of agriculture with the United States government on a large scale have been rare. Yet given the opportunity in the 50's, colleges eagerly took up the new challenge to expand their horizons of interest to the international sphere. They formed new alliances through the federal agencies supporting international programs, often using as a model the long-time favorable experience with the USDA. The success of their efforts is clear, but as one would expect they learned through experience that providing technical assistance and establishing new systems of agricultural education abroad could be difficult and often required more time than initially anticipated. A new appreciation for research grew out of these early experiences as it was soon learned that a new "knowledge base" had to be developed that was not only technically and scientifically sound but that was accepted in the cultural, social, and political environment of the country involved. The Colleges also learned that the relationship with its own government agencies had a set of problems. All too often over the past 30 years procedural problems for involving universities have grown into programmatic obstacles. This is not to mean that some of the problems have not been with the universities because these institutions have their own internal constraints. It was in part for this reason that the Title XII amendment of the Foreign Assistance Act of 1975 was adopted. This act attempted to structure through legislation a more definitive role for universities in foreign assistance activities.

As we look ahead I am reminded of some observations made by Arthur T. Mosher, a long-time student of agricultural development and institution building abroad. He has also studied the American colleges' of agriculture role enough to know something about how we operate and the type of rewards that will motivate progress. In a speech "The American Universities in Developing Countries" he talked about four guidelines to follow in providing technical assistance to developing agricultural economies.

First, he cautioned against making errors in judgments by repeating successful programs of the past 25 years that are no longer apropos in the developing world as we find it today. This admonition was directed toward those strategies and techniques that have been successful as well as those that have been less so. In short, a fresh look is required that recognizes among other things the dramatic changes that have occurred in many developing nations over the past decades, especially in their institutions of higher education.

Second, the productive program of the future, he said, will not be achieved by "fiddling with organizational arrangements." A report on the recently concluded United Nations Conference on Science and Technology for Development indicated that much of the deliberations were directed toward juristic-tional and organizational matters, leading one scientist to say his participation was not even at the "window dressing" level.

Third, in recognition of the role of international agriculture in science in solving world food and population problems is challenging to Americans and we should be prepared

to accept well trained, highly motivated young people who are seeking to develop a career opportunity in international agriculture.

Next, an important part of the future of America's involvement in international activities will be its ability to limit activities to those in which the U.S. holds a truly comparative advantage. In so doing universities should keep their primary role in perspective as well. Mosher speaks to this caveat as follows: "One does not have to be much of a cynic to discern a strong element of competition among the USDA, land-grant universities, AID itself, and private developmental assistance contractors (whether profit or non-profit), each feeling that it has the greatest competence for certain types of developmental assistance. American universities have enough legitimate opportunities and responsibilities, and enough diversity among those, without taking on anything that is peripheral to their central objectives, or that some other type of organization can do just as well."

And then about research, we must look for areas of complementarity of interest and mutual benefits. There is an increased cluster of agricultural programs that are common to both the developed and the developing countries and it should be our goal to identify such areas and to mount a program that involves both the institutions in developing countries as well as in our own in a synergistic manner to the end that a more effective and productive end result will occur.

Now matched against these criteria, we can begin to analyze some of the recent developments as they relate to the international in planning and supporting international programs. You would expect, I am sure, for me to make a reference to the purposes for Title XII and some of the achievements.

The BIFAD Board and its two major committees, the Joint Research Committee and the Joint Country Agricultural Development Committee have been working diligently for three years now to forge a new type of institutional alliance with the federal government for colleges of agriculture. The task has been troubled by administrative, bureaucratic, and philosophical hurdles to be overcome or at least to be understood. But if one looks at the specific mandates given to the BIFAD by the Congress and what has happened thus far, I believe significant progress has been made. To refresh your memory, these are the specific legislative charges:

One, to strengthen capabilities of universities in teaching, research, and extension that will enable them to participate in Title XII programs.

Two, to build and strengthen the institutional capacity and human resources skills in agriculturally developing countries.

Three, to provide program support for long-term collaborative university research in food and agriculture.

Four, to involve universities more fully in the international network of agricultural sciences.

and Five, to provide program support for international agricultural research centers, to provide support for research projects identified for specific problem solving needs and to

develop and strengthen national research systems in developing countries.

As a means of strengthening the ability of universities to participate in international programs, grants have been made on a matching basis to 46 universities with the expectation that a total of 76 will be made by the end of the year. It is expected that this program, if fully funded, will require \$9 million in 1980. In reviewing the strengthening proposals from the universities, BIFAD was gratified to see the number of them that referred to building language capability, and developing a staffing pattern that will enable them to engage in long-term internationally oriented research, teaching, and extension activities.

In collaborative research there are now in place two cooperative research support projects, one in small ruminants, another in sorghums and millet, and the planning is well under way for major programs in nutrition and fisheries. Planning grants have been made for additional projects, among them, peanuts and tropical soils.

BIFAD has been engaged in extended discussions with the USAID planning group relative to the importance of additional funding for country programs, specially oriented toward institution building. We have argued that the comparative advantage of the United States would well be served if a major commitment was made for expanding the capability of developing countries to utilize resources more effectively through a better coordinated system of research, teaching, and extension.

In its discussions, the Board has said to the agencies that institution building projects should have these basic proponents:

One, the projected life of the project should be long term; that is, in the range of 10-15 years.

Two, the principle focus of the project must be to develop indigenous institutional capacity.

Three, the effort must be sustained and not subject to changes that result from operational and procedural questions.

Four, the highly professional technical assistance must be employed.

Five, training and human development must be stressed.

and Six, projects should be planned and implemented in a "collaborative mode" involving recipient countries, the university, and funding agencies.

Programs, however structured, must take cognizance of the Congressional mandate often referred to as "New Directions" for U.S. and international assistance programs. This legislation states that expenditures of funds overseas must stand the test of service to the "poor majority," the malnourished, and otherwise underprivileged people of the cooperating country. The test is simple but the delivery of programs that will assist this hard-to-reach segment of many populations is difficult. Those who support the institutional development concept argue that through the creation of indigenous institutions the capability

to serve the poor, the hungry, and the malnourished can be enhanced. Agricultural programs have the potential of serving the rural poor, often a major segment of developing nations' populations.

The other two roles of BIFAD outlined in the Title XII program are involvement of colleges of agriculture in an international network and the enhancement of the U.S. institutional relationships to the programs of the international research centers. These roles have not received much attention to date by the BIFAD staff or the Board. Both areas will be on the agenda of the program of Title XII in years ahead.

A spin-off of BIFAD activities that will be of interest to the Joint Council has been the catalytic role the Board has played in encouraging universities to do more in internal planning concerning its international programs. For example, the development of a strengthening grant called for an institutional statement on program directions in which priorities were listed for participating segments of the university. An important part of this exercise was a commitment by the university to provide matching funds even though the guidelines for providing the match allowed the university a great deal of leeway.

I now want to turn to comments that might relate to the development of the option open to the Department of Agriculture through section 1458 of Title XIV of the 1977 Farm Bill.

It is clear that the Congress intended to authorize the USDA to expand its international programming activities. The Department thus has an opportunity to assist in the development of programs aimed at mobilizing U.S. agricultural expertise on a coordinated basis, building on its long-time successful joint efforts with land-grant universities.

There is a critical need for a more coordinated effort at the national level in international agriculture technical assistance programs. If we are to mobilize resources, a coordinated approach on a broad scale is needed. The framework should be sufficiently flexible to encourage universities, private sector organizations, and government agencies participation. There are a number of bureaucratic and other procedural matters that stand in the way of this coordinated effort; however, it would seem that through a spirit of cooperative effort a more satisfying working environment for partners in this effort can be defined. The USDA has the stature and the expertise to encourage and help shape a truly national effort.

These programs should be so structured that they can be communicated to other organizations that have an interest in the total agricultural economy, such as agribusinesses, the private sector, scientific societies, the volunteer organizations, as well as the universities.

With the development of the Institute for Technical Cooperation (ISTC) and the International Development Coordinating Agency (IDCA) plus the USDA authorization in section 1458 of the 1977 Farm Act, there is another opportunity to develop a broader approach to agricultural technical assistance linking research and institutional development in new ways that are more flexible and truly collaborative in concept than has been our experience in the past. Our country will be better served and so will the people we want to help. To do this will require strong country institutions with an understanding of the needs of agricultural development abroad and how the U.S. can exploit its position of strength in agriculture to the best advantage. Innovative programs are needed backed by dedicated people adequately supported on a reasonable time frame. We have learned that the poorest way to approach these tough problems is to "throw dollars" at it in the hope that something happens!

I want to summarize by quoting once more from Art Mosher regarding the future role of American institutions in world agricultural development:

For decades, if not centuries, universities have contributed to internationalizing science. The international agricultural research institutions have accelerated drawing germplasm and research techniques from everywhere in the world to tackle selected farm production problems of many specific agroclimatic zones. University graduate training and associated libraries have fostered a similar internationalizing of knowledge related to agricultural production.

Our current and future tasks consist of internationalizing the perspectives of agricultural institutions while simultaneously carrying on productive in-country development.

